



## PATENT ABSTRACTS OF JAPAN

(11) Publication number: **11292571 A**(43) Date of publication of application: **26.10.99**

(51) Int. Cl.

**C03C 17/34**  
**B32B 9/00**  
**B32B 17/06**  
**B60J 1/00**  
**C03C 17/30**

(21) Application number: **11004745**(22) Date of filing: **11.01.99**(62) Division of application: **06130971**(71) Applicant: **CENTRAL GLASS CO LTD**

(72) Inventor: **MAKITA KENSUKE**  
**TAKAMATSU ATSUSHI**

**(54) WATER-REPELLENT LOW-REFLECTION GLASS****(57) Abstract:**

**PROBLEM TO BE SOLVED:** To obtain a water-repellent low-reflection glass which has water repelling and oil repelling property and contamination resistance without decreasing optical characteristics, which reduces reflection and more significantly develops its performance, which has excellent adhesion property, scratching resistance and weather resistance, which can maintain its performance for a long time, which can be kept its state only by simple wiping even when water or contaminant deposits on the glass, and which is

especially useful for buildings and industrial purposes.

**SOLUTION:** This low-reflection glass is produced by laminating oxide thin films having different refractive indices on one surface of a glass substrate to decrease the reflection on the glass surface. Further, a SiO<sub>2</sub> thin film having 21.50 refractive index n or a mixture oxide thin film of SiO<sub>2</sub> and other oxides is formed on the opposite surface of the glass to the surface where the thin films above described are laminated. A silane compd. having polyfluoroalkyl groups is bonded at least to the surface of the SiO<sub>2</sub> or SiO<sub>2</sub> mixture thin film.

COPYRIGHT: (C)1999,JPO